"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

GOLIKOV, Aleksandr Arsen'Yevich; POTEKUSHIN, Nikolay Vasil'yevich; GOLUBEVA, K.A., inzh., retsenzent; MASLIY, K.Ya., zuborez, retsenzent; ZHUKOV, P.A., kand.ekon.nauk, red.; VOLOSATOV, A.Ya., red. vypuska; BELYAKOV, M.N., red.; KON'KOV, A.S., inzh., red.; ROZENBERG, I.A., kand.ekon.nauk, red.; SMIRNITSKIY, Ye.K., kand.ekon.nauk, red.; SUSTAVOV, M.I., inzh. red.; DUGINA, N.A., tekhn.red.

[How to save metals] Kak luchshe ekonomit' metall. Moskva, Mashgiz, 1960. 40 p. (Biblioteka rabochego mashinostroitelia. Seriia: "Osnovy konkretnoi ekonomiki," no.9) (MIRA 14:5)
(Metalwork) (Metals, Substitutes for)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

IVANESKU, P. [Ivanescu, P.]; ROZENBERG, Ivo; RUDYANU, S. [Rudeanu, S.]

Application of discrete linear programming to the minimization of Boolean functions. Rev math pures 8 no.3:459-475 '63.

1. Institut matematiki Akademii RNR (for Ivanescu, Rudeanu).
2. Vyssheye tekhnicheskoye uchilishche, Brno, ChSSR (for Rozenberg).

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

YABOROV, I.D.; ROZENBERG, I.A., kand.ekon.nauk, red.; SEREDKINA, N.F., tekhn.red.

[Business accounting in the Ural Railroad Car Plant] Vnutrizavodskii khozraschet na Uralvagonzavode. Sverdlovsk, TSentr. biuro tekhn.informatsii, 1959. 35 p. (MIRA 14:4)

(Nizhniy Tagil--Railroads--Cars)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

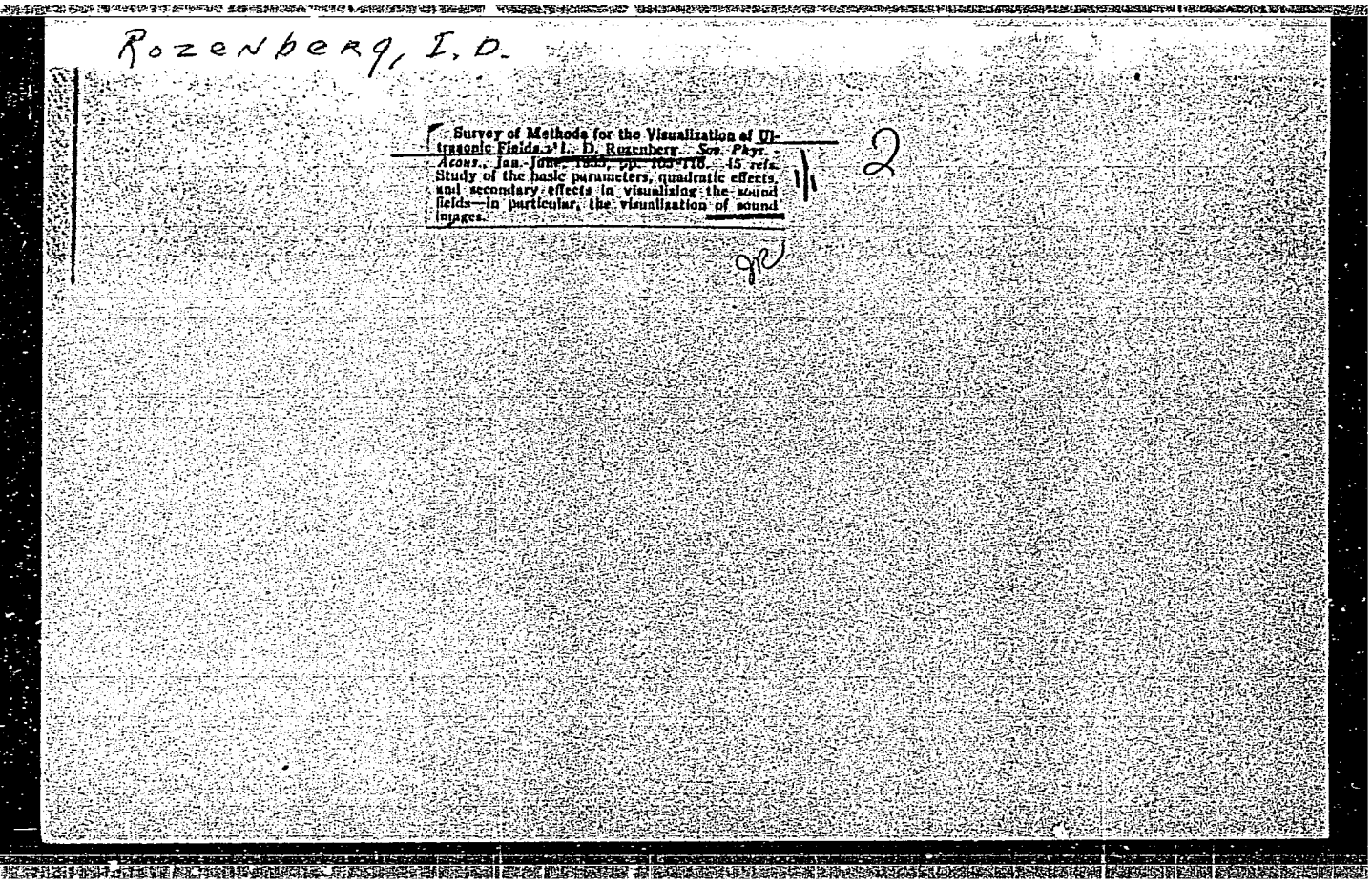
AZIMOV, P.K.; ROZENBERG, I.B.

Petroleum prospecting in Bactrian sediments of the Khozhiabad field.
Geol. nefti i gaza 4 no.10:35-40 O '60. (MIRA 13:9)

1. Ferganskiy neftekombinat.
(Khozhiabad region--Petroleum geology)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3



Rozenberg, I. D.

Survey of Methods for the Visualization of Ultrasonic Fields. I. D. Rozenberg. *Sov. Phys. - Acous.*, Jan.-June 1955, pp. 103-110. 15 refs.
Study of the basic parameters, quadratic effects and secondary effects in visualizing the sound fields—in particular, the visualization of sound images.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

KOLENBERG, L. V.

Conditions for obtaining the Greatest Concentration of Ultrasonic Radiation.—L. D. Rozenberg. (*C. R. Acad. Sci. U.R.S.S.*, 11th Feb. 1954, Vol. 94, No. 5, pp. 845–848. In Russian.) Theoretical investigation of focusing to obtain maximum pressure or maximum velocity at the focal point of (*a*) reflected or refracted plane waves, and (*b*) waves from curved radiators such as barium titanate or quartz. The variation of the focusing factor with the aperture is shown graphically for five different systems.

11/29/54

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, I.L.

82647
S/126/60/010/02/019/020
E021/E306

18.1220 18.7500

AUTHORS: Puchkov, B.I. and Rozenberg, I.L.

TITLE: The Reasons for the Strengthening of Aluminium Bronze During Recovery

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol. 10, No. 2, pp 302 - 305

TEXT: Experiments were carried out on aluminium bronze (7.1% Al). Ingots, made from high-purity materials, were rolled, first hot and then cold, to a thickness of 0.3 mm with intermediate heat treatments. The degree of cold working was 50%, with the final rolling produced in 4 or 27 passes. Samples were cut from the strip and the elastic limit was determined by the bending method of Rakhshtadt and Shtremel' (Ref. 10). The specimens were heated at 280 °C (below the recrystallisation temperature) for 5-60 min. Fig. 1 shows the diagram for deformation where residual deformation is the x-axis and the total deformation the y-axis. This shows the increase in elastic limit brought about by a low temperature anneal (the top two curves). It also shows that there is a difference between the samples rolled with 4 and 27 passes. The

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

The Reasons for the Strengthening of Aluminium Bronze During Recovery

samples after the 4 passes have a higher elastic limit but the difference decreases with the annealing treatment. Fig. 2 shows the effect of time on the elastic limit. Samples cut in various directions in relation to the rolling direction show that the strip is anisotropic in properties. Fig. 3 shows the anisotropy in diagrammatic form. With a sub-recrystallisation annealing treatment, the anisotropy disappears. The results can be explained if macroscopic residual stresses exist in the rolled strip. These are relaxed by the annealing treatment and the "true" elastic limit of the deformed material is measured. Thus, the change in elastic limit during recovery occurs because of redistribution of the microstresses. There are 3 figures and 12 references: 1 English and 11 Soviet.

ASSOCIATION: Giprotsvetmetobrabotka

SUBMITTED: January 14, 1960

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ACCESSION NR: AP4033603 S/0119/64/000/004/0032/0032

AUTHOR: Rozenberg, I. M.

TITLE: Electronic time marker

SOURCE: Priborostroyeniye, no. 4, 1964, 32

TOPIC TAGS: time marker, electronic time marker, oscillograph, oscillograph time marker, transistorized oscillograph time marker

ABSTRACT: A transistorized nonsymmetrical multivibrator is proposed as a source of time marking signals for an oscillograph. Two P15 transistors, one D808 voltage-regulating diode, and one D7G temperature-compensating diode are used (circuit diagram supplied) in a device marking seconds. It is claimed that the time marking error is 1% or less and that the marker was tested at 10–35C. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00 ATD PRESS: 3055 ENCL: 00

SUB CODE: EC NO REF SOV: 000 OTHER: 000

Cardl 1/1

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

NOVENBERG, I.N.

Electronic time marker. Trudy Inst. fiz. Zem. no.35:70 '64.
(MIRA 17:12)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, I. M.

Electronic timer. Priborostroenie no. 4:32 Ap '64.
(MIRA 17:5)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, I.M.

Voltage converter for a synchronous hysteresis motor. Trudy Inst. fiz. Zem. no.26:101-102 '63. (MIRA 16:11)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ACC NR: AT6000087 SOURCE CODE: UR/2619/64/000/035/0070/0070

AUTHOR: Rozenberg, I. M. 44,55

ORG: Institute of Physics of the Earth im. O.Yu. Shmidt, AN SSSR (Institut fiziki zemli AN SSSR) 44,55

TITLE: Electronic timer

SOURCE: AN SSSR. Institut fiziki zemli. Trudy, no. 35, 1964, 70

TOPIC TAGS: oscillograph, electronic circuit, seismologic instrument, seismography, timing device 12,44,55 12,44,55

ABSTRACT: A circuit diagram and description are given for an electronic circuit used to record time in a magnetoelectric oscillograph. The timer is assembled in accordance with the circuit of an asymmetric multivibrator for semiconductor triodes of the P15 type. When it is used with a galvanometric oscillograph, time errors do not exceed 2% (schematic given). Orig. art. has: 2 figures. [FSB: v. 1, no. 5]

SUB CODE: EC, ES / SUBM DATE: none

Card 1/1

090104L5

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

KOVRIGINA, V.I.; ROZENBERG, I.M.

Stand for determining the coordinates of earthquake epicenters. Trudy Inst. fiz. Zem. no.26:98-100 '63. (MIRA 16:11)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

S/119/63/000/002/008/014
A004/A127

AUTHOR: Rozenberg, I.M.

TITLE: D-C converter for supplying synchronous hysteresis motors

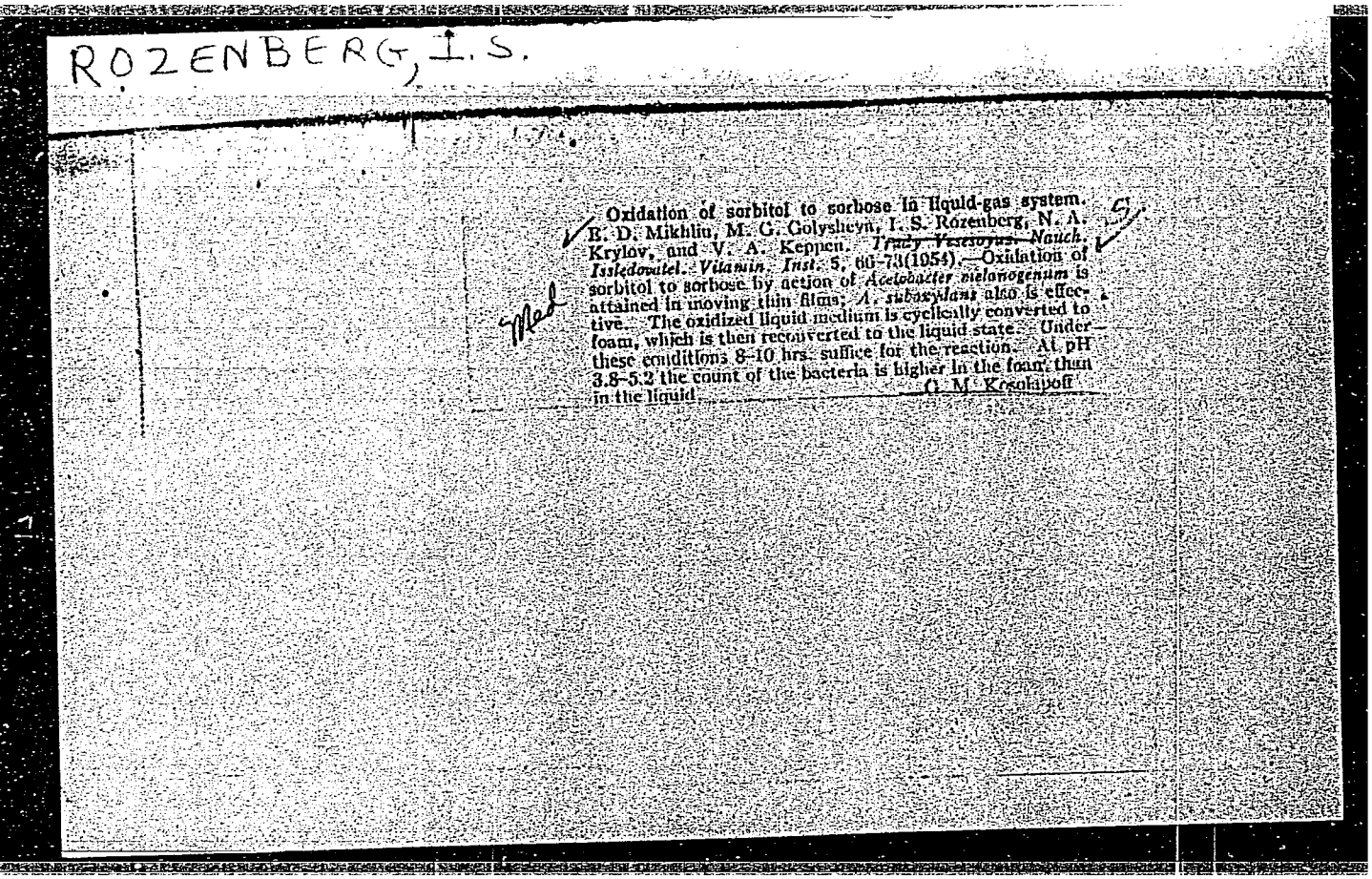
PERIODICAL: Priborostroyeniye, no. 2, 1963, 24

TEXT: This d-c converter is intended for supplying the Г-31 (G-31) synchronous hysteresis motor of an automatic recorder from a 5НКН-60 (5NKN-60) accumulator battery of 18 v (current input 1.5 amp). It can also be used with an accumulator battery as portable power source of 220 v, a steady frequency of 50 cps and a power of 30 w. A brief description of the converter design is given, which consists of a master oscillator designed as transistorized standard multivibrator with П13Б (P13B) triodes, a preamplifier with П-201 (P-201) triodes, a power amplifier with П4Д (P4D) triodes and master-oscillator supply stabilizer. To increase the converter frequency stability up to 1% it is recommended to cut in, after the multivibrator, an emitter repeater with П15 (P15) triodes. Some technical specifications on the transformers are presented and the converter overall dimension given as 200 x 150 x 80 mm. There is 1 figure.

Card 1/1

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3



ROZENBERG, I. S.

Oxidation of sorbitol to sorbose in liquid-gas system. B. D. Mikhlin, M. G. Golysheva, I. S. Rozenberg, N. A. Krylov, and V. A. Keppen. *Trudy Vsesoyuz. Nauch. Issledovatel. Vitamin. Inst.* 5, 60–73(1954).—Oxidation of sorbitol to sorbose by action of *Acetobacter melanogenum* is attained in moving thin films; *A. suboxydans* also is effective. The oxidized liquid medium is cyclically converted to foam, which is then reconverted to the liquid state. Under these conditions 8–10 hrs. suffice for the reaction. At pH 3.8–5.2 the count of the bacteria is higher in the foam than in the liquid. G. M. Kosolapoff

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

MIKHLIN, E.D.; GOLYSHEVA, M.G.; ROZENBERG, I.S.; KRYLOV, N.A.; KEPPEN, V.A.

Oxidation of sorbitol of sorbitol into sorbose in a liquid-gas system; summary. Trudy VNIVI 5:66-73 '54. (MLRA 9:3)
(SORBOSE) (SORBITOL)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ACCESSION NR: AP4029383 S/0135/64/000/004/0010/0012

AUTHOR: Bogdanova, V. V. (Engineer); Lashko, S. V. (Candidate of Technical Sciences); Rozenberg, I. V. (Engineer)

TITLE: On the chemical inhomogeneity of brazed joints

SOURCE: Svarochnoye proizvodstvo, no. 4, 1964, 10-12

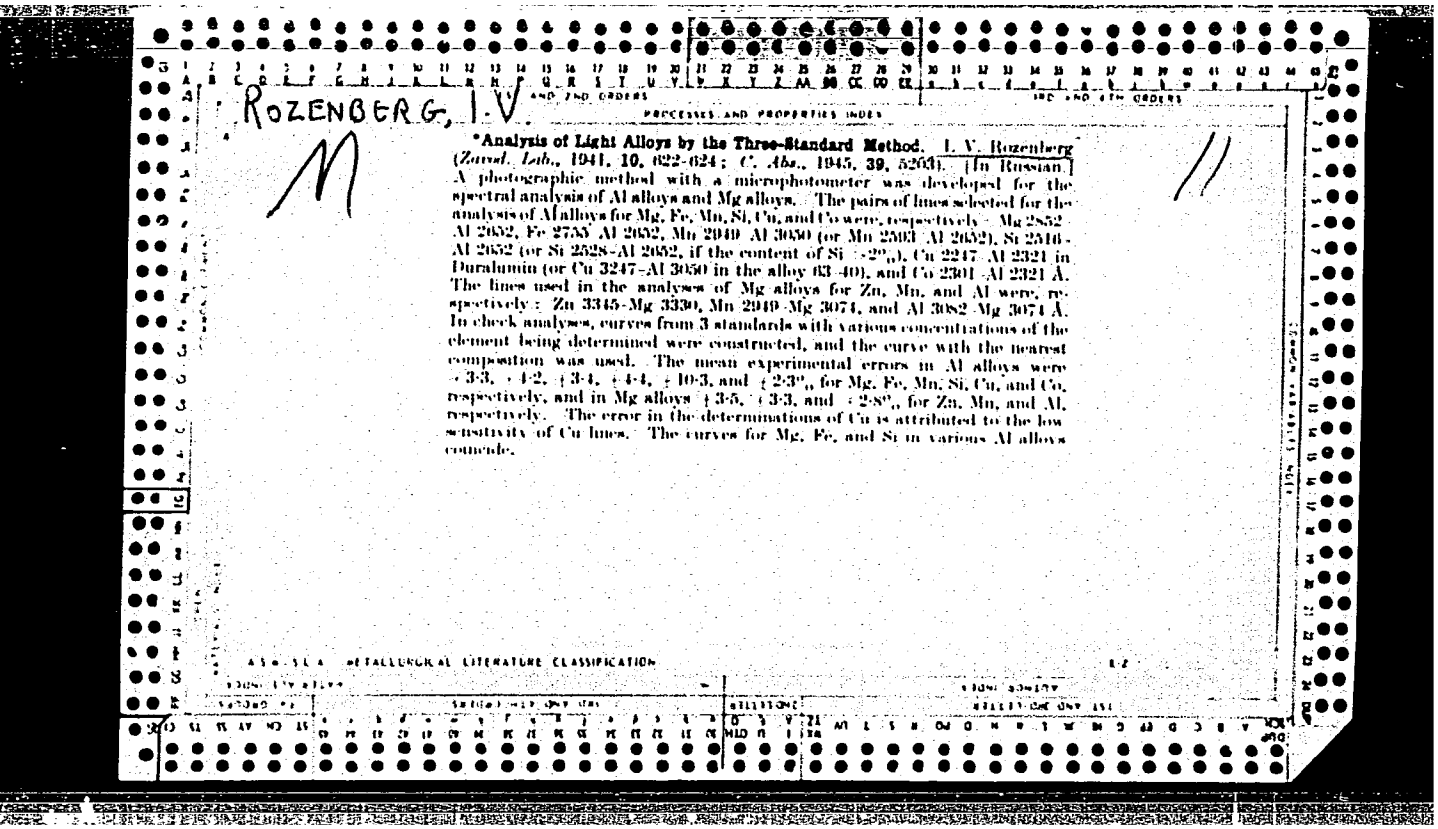
TOPIC TAGS: brazing, nickel brazing, aluminum brazing, brazed joint, chemical inhomogeneity

ABSTRACT: Using methods of local micro x-ray spectral analysis, the authors determined the chemical composition of brazed joints in nickel furnace brazed with copper or the eutectic alloy Ni-11% Si, and aluminum furnace brazed with the eutectic dissolution of Al-33% Cu. It was found that composition of the brazed joints changes considerably along the length and depth of the joint. It is shown that this inhomogeneity is associated with the dissolution of the base material in the brazing alby, and with the mutual diffusion between the base material and the brazing alloy. Graphs showing the content of copper and silicon in joints brazed under various conditions are presented. The most important

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3



ROZENBERG, I.V.

PROCESSES AND PROPERTIES INDEX

M

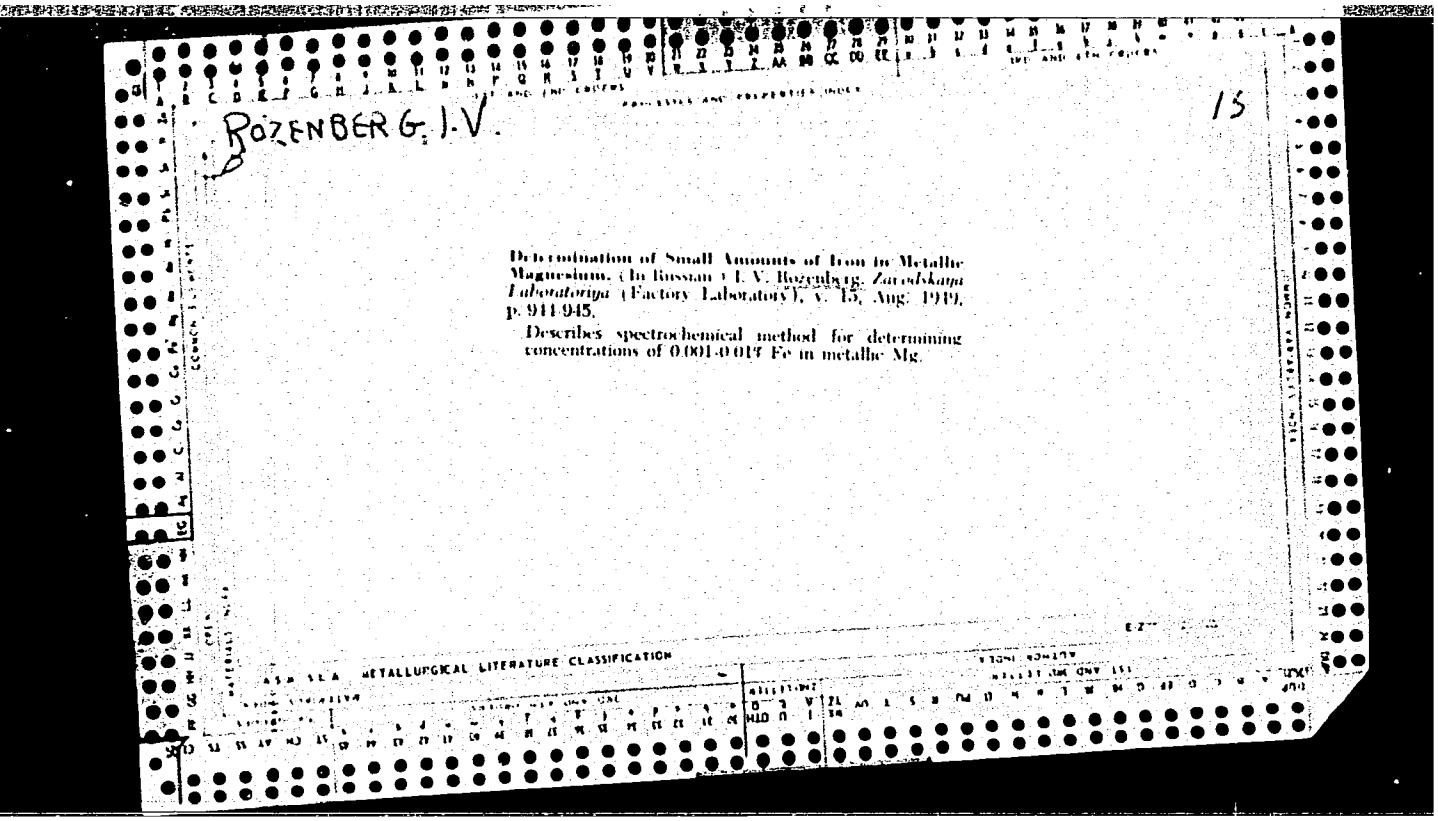
11

***Analysis of Light Alloys by the Three-Standard Method.** I. V. Rozenberg (*Zavod. Lab.*, 1941, **10**, 622-624; *C. Abs.*, 1945, **39**, 5263). [In Russian] A photographic method with a microphotometer was developed for the spectral analysis of Al alloys and Mg alloys. The pairs of lines selected for the analysis of Al alloys for Mg, Fe, Mn, Si, Cu, and Co were, respectively: Mg 2852-Al 2652, Fe 2755-Al 2652, Mn 2949-Al 3050 (or Mn 2593-Al 2652), Si 2516-Al 2652 (or Si 2528-Al 2652, if the content of Si >2%), Cu 2247-Al 2321 in Duralumin (or Cu 3247-Al 3050 in the alloy 63-40), and Co 2301-Al 2321 Å. The lines used in the analyses of Mg alloys for Zn, Mn, and Al were, respectively: Zn 3345-Mg 3330, Mn 2949-Mg 3074, and Al 3082-Mg 3074 Å. In check analyses, curves from 3 standards with various concentrations of the element being determined were constructed, and the curve with the nearest composition was used. The mean experimental errors in Al alloys were ±3·3, ±4·2, ±3·4, ±4·4, ±10·3, and ±2·3% for Mg, Fe, Mn, Si, Cu, and Co, respectively, and in Mg alloys ±3·5, ±3·3, and ±2·8%, for Zn, Mn, and Al, respectively. The error in the determinations of Cu is attributed to the low sensitivity of Cu lines. The curves for Mg, Fe, and Si in various Al alloys coincide.

A 5 4 - 5 L A METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3



ROZENBERG, I.V.

15

Determination of Small Amounts of Iron in Metallic Magnesium. (In Russian.) I. V. Rozenberg. *Zavodskaya Laboratoriya* (Factory Laboratory), v. 15, Aug. 1949, p. 941-945.

Describes spectrochemical method for determining concentrations of 0.001-0.01% Fe in metallic Mg.

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, K.D.

Organization of pharmacy services for the population. Farmatsev. zhur. 19 no.1:85-87 '64. (MIRA 18:5)

1. Upravlyayushchiy aptekoy No.4 g. Zaporozh'ya.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

TASKAYEV, I.; SOLOV'YEV, I.; KHAIS, A.; ARANOVSKIY, M.; POPOV, A.; ROZENBERG, Kh.

Readers' letters. NTO 3 no.12:45-46 D '61. (MIRA 15:1)

1. Predsedatel' soveta nauchno-tekhnicheskogo obshchestva Odesskogo sudoremontnogo zavoda No.2 (for Khais). 2. Uchenyy sekretar' soveta nauchno-tekhnicheskogo obshchestva kombinata Pechenganikel', pos. Nikel', Murmanskoy obl. (for Aranovskiy). 3. Zamestitel' nachal'nika obshchestvennogo konstruktorskogo byuro pri institute Giproshakht, Leningrad (for Popov). 4. Zamestitel' predsedatelya soveta nauchno-tekhnicheskogo obshchestva Berdichevskogo kozhevennogo zavoda (for Rozenberg).
(Technological innovations)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

IVANESKU, P. (Ivanescu, P.); ROZENBERG, Ivo; RUDYANU, S. (Rudeanu, S.)

Application of discrete linear programming for the minimization of Boolean functions. Rev math pures 8 no. 3:459-475. '63

1. Institut matematiki Akademii RNR (for Ivanescu, Rudeanu).
2. Vyssheye tekhnicheskoye uchilishche, Brno, ChSSR.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROSENBERG, Kh. M. Cand Med Sci -- (diss) "Experimental substantiation of of the parenteral method of BTsZh-vaccination." Mos, 1959. 16 pp (Min of Health, USSR. Central Inst for the Advanced Training of Physicians), 200 copies (KL, 47-59, 117)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, Kh.N.; BABCHUK, P.R.; MALYY, I.I. [Malii, I.I.]

Intensification of the soaking and liming processes in the manufacture of stiff leather. Leh.prom. no.1:32-34 Ja-Mr '63.
(MIRA 16:4)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

USSR/Medicine - Tuberculosis FD-1639

Card 1/1 : Pub. 148-19/28

Author : Rozenberg, Kh. M.

Title : Experimental investigation of an intranasal method of BCG vaccination

Periodical : Zhur. mikro. epid. i immun. 7, 75-80, Jul 1954

Abstract : The effects of vaccinating mice intranasally with living cultures of BCG bacilli are described. Two drops of a BCG culture were dropped into the nostrils of mice under a light ether anesthesia. The vaccine bacilli were found in all the organs of the mice, including the brain. The vaccinated mice were five times more susceptible to pneumonia than control mice. The results of the investigations are presented on two charts and a graph. No references are cited.

Institution : State Control Institute of Vaccines and Serums imeni L. A. Tarasevich (Dir.-S. I. Didenko)

Submitted : December 15, 1953

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, Kh.M.

NAKHIMSON, L.I.; ROZENBERG, Kh.M.

Evaluation of the activity of the BCG vaccine. Zhur.mikrobiol.epid. i immun. no.7:102 Jl '54. (MLRA 7:9)

1. Iz Gosudarstvennogo nauchnogo kontrol'nogo instituta vaktsin i syvorotok im. Tarasevicha.
(BCG)

Abstract U-7920, 8 Mar 56

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, Kh.M.

Adaptation of BCG in the organism of white mice in parenteral methods of administration. Zhur.mikrobiol.epid.i immun. no.8:42-46 Ag '54. (MLRA 7:9)

1. Iz laboratorii BTsZh (zav. kandidat meditsinskikh nauk L.I.Nakhimson) TSentral'nogo kontrol'nogo instituta imeni Tarasevicha (dir. S.I.Didenko)

(BCG VACCINATION, administration, *parenteral, in white mice)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

DERGACHEV, A., kand.ekonomicheskikh nauk; ROZENBERG, L., kand.tekhn.nauk; ERIOHEVSKIY, Z., inzh.

Technical and economic expediency of repairing motor-vehicle parts. Avt.transp. 38 no.9:27-29 S '60. (MIRA 13:9)
(Motor vehicles--Maintenance and repair)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L.

New journal on ultrasonics. Akust.zhur. 5 no.4:506 '59.
(MIRA 14:6)
(Ultrasonics)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

BEN'YAMINOVICH, I., inzh.; CHULITSKIY, S., inzh.; ROZENFEL'D, L., kand.khim.nauk

Cementless autoclaved air-entrained cinder-flyash concrete. Stroitel', no.7:3-7, 16-17 Jl '61. (MIRA 14:8)
(Nizhniy tagil--Lightweight concrete)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENFEL'D L., kand.khim.nauk; GEMERLING, G., kand.tekhn.nauk; CHERNOV, A., inzh.; KAPRANOV, V., inzh.; KUTINA, M., inzh.

Improving the manufacturing techniques for air-entrained fly ash concrete. Na stroi.Ros no.2:33-34 F '61. (MIRA 14:6)

(Air-entrained concrete)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L.A.

Direct variational methods in the mixed problem of the elasticity theory for a semispace. Trudy Inst. mat. i mekh. AN Uz. SSR no.13: 71-91 '54. (MIRA 11:6)

(Elasticity)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

SOV/24-59-3-9/33

AUTHORS: Rozenberg, L. A., Skorneva, M. I. (Moscow)

TITLE: Filtration of Sequences of Random Quantities

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1959, Nr 3, pp 55-62 (USSR)

ABSTRACT: The paper gives a condensed presentation of solutions to two problems, one the problem of an ordinary (non-predicting) linear filter, which is disposed of cursorily, and the other a problem due to Zadeh and Ragazzini, in which the filter is coupled to a computer to predict the values of a nonrandom component (useful signal) present in noise. [The work appears to be a summary and generalization of three papers presented at the IRE Conference on Information Theory in June 1957 (papers by Kent, Zadeh and Kulikowski)]. The paper contains 3 figures and 3 references, of which 2 are English and 1 is Soviet.

SUBMITTED: July 17, 1958.

Card 1/1

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

KRUG, Yelena Karlovna; MININA, Ol'ga Mikhaylovna[deceased]; SHTEYNBERG, Sh.Ye., retsenzent; ROZENBERG, L.A., red.; BUL'DYAYEV, N.A., tekhn. red.

[Electrical controllers in industrial automatic control systems] Elektricheskie reguliatory promyshlennoi avtomatiki. Moskva, Gosenergoizdat, 1962. 334 p. (MIRA 15:10)
(Automatic control) (Electric controllers)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

Rozenberg, L.A

2882. Rozenberg, L. A., On the pressure of a rigid body on a plate (in Russian), *Inzhener. Sbornik, Akad. Nauk SSSR* 21, 151–155, 1955.

Author develops formulas for the determination of the distribution of the pressure on a circular plate when acted upon by cylindrical rigid body. Two cases are analyzed: (1) A thin circular plate freely supported around its edge; (2) the same clamped around the edge. It is shown that theoretically the pressure is sharply increased toward the outer part of the area of contact. When the area of contact is small, pressure is nearly uniformly distributed. In reality, however, the increase of pressure near the outer contact will be somewhat smaller due to the local crushing effect. This note is an improvement on L. A. Gallin's method showing the outline of the pressure area only (AMR 1, Rev. 1322)

M. Malecz, USA

Inst. Mechanics, AS USSR

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

cA ROZENBERG, L.A. 14

Physicochemical conditions for bacterial precipitation of calcium. L. A. Rozenberg (Oceanol. Inst., Acad. Sci., Moscow). *Mikrobiologiya* 19, 410–17(1950).—Up to 17% of the Ca in solns. of $CaCO_3$ (up to 250 mg./l.) is pptd. in 5–6 days by *Bacterium precipitatum*. Though CO_2 helps keep $CaCO_3$ in soln., crystn. is very active at microdepths.
Julian F. Smith

1951

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L.A.

Quantity of bacteria in ground deposits of the Bering Sea (methodological investigation based on a quantitative calculation of bacteria). Trudy Inst.okean. 11:264-270 '54. (MLRA 8:2)
(Bering Sea--Ocean bottom)(Bering Sea--Microorganisms)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

KALINENKO, V.O.; ROZENBERG, L.A.

Effect of organic substances on associations of nitrifying bacteria. Pochvovedenie no.12:25-30 D '56. (MLRA 10:2)

1. Institut okeanologii Akademii nauk SSSR.
(Bacteria, Nitrifying)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG-L.A.

2

Relations of bacteria to chemical processes and animal organisms in sea muds of the Northwest Pacific. L. A. Rozenberg and N. A. Mefedova (Inst. Oceanol., Acad. Sci. U.S.S.R., Moscow). *Mikrobiologiya* 25, 61–5(1956).—Studies of the complex relations in samples from 12 locations show higher bacterial cell counts in the muds which are richer in microfauna. Muds which are poor in both have a relatively high concn. of biogenic factors. Microflora, microfauna, and biogenic factors all decrease as distance from shore increases. Alky., denitrification activity, and the ratios N:NH_4 and P:PO_4 were investigated.

Julian F. Smith

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L.A., MEFEDOVA, N.A.

General study of earths of the northwestern Pacific. L.A. Rozenberg, N.A. Mefedova. [with Summary in English] Mikrobiologiia 27 no.2:214-220 Mr-Ap '58 (MIRA 11:5)

1. Institut okeanologii Akademii nauk SSSR, Moskva.
(PACIFIC OCEAN--BACTERIA)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

17(4), 3(9) SOV/20-122-3-15/57

AUTHOR: Rozenberg, L. A.

TITLE: On the Zonal Distribution of Bacteria in the Water of the Far East Seas and of the North-Western Part of the Pacific (O zonal'nom raspredelenii bakteriy v vode dal'nevostochnykh morey i severo-zapadnoy chasti Tikhogo okeana)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 3, pp 378-380 (USSR)

ABSTRACT: The first investigations of the bacteria of the seas of the Far East were carried out by the author on board the expedition ship "Vityaz'" in 1949. Until 1956, a great part of the North-Western Pacific and also of the Bering Sea, the Okhotsk Sea , and the Sea of Japan has been investigated. Bacteriological analyses of the water were carried out at 122 stations. This paper supplies data concerning the distribution of the saprophyte bacteria in the above-mentioned regions. The data of the microbiological analyses were dealt with statistically. Moreover, the average number of bacteria in 1 ml was found for the superficial layer (depth 100 m) of the water. The zonal distribution of the bacteria is shown by

Card 1/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

On the Zonal Distribution of Bacteria in the Water of the Far East Seas and of the North-Western Part of the Pacific

a table. The water of the Bering Sea contains the lowest amount of bacteria. In 42 % of the 1 ml samples the water does not contain bacteria at all, and 46 % of the samples do not contain more than 2 cells pro 1 ml. The water of the Okhotsk Sea is slightly richer in bacteria, and the Japanese Ocean contains the greatest amount of bacteria. Numerical data are given. The North-Western parts of the Pacific are still richer in bacteria. There are regions of higher bacteria content in the Okhotsk Sea and in the Bering Sea. The 42th degree of latitude is a sharp boundary; north of it, there are the first 3 zones of lower bacteria content, and south of it there are the first 3 zones of higher bacteria content. The regions between the 20th and 32th degree of latitude contain the maximum amount of bacteria. In the region of the Pacific near the equator still higher concentrations of bacteria are expected. The zonal structure of the saprophyte bacteria is most marked in the open sea. In the Sea of Japan and in the Okhotsk Sea, this distribution is more complicated. There are 1 figure, 1 table, and 4 references, 3 of which are Soviet.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

SOV/2o-122-3-15/57

On the Zonal Distribution of Bacteria in the Water of the Far East Seas and of the North-Western Part of the Pacific

ASSOCIATION: Institut Okeanologii Akademii nauk SSSR
(Institute of Oceanography, Academy of Sciences, USSR)

PRESENTED: May 10, 1958, by V. N. Shaposhnikov, Academician

SUBMITTED: April 16, 1958

Card 3/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

17(3), 18(3) SOV/20-125-4-62/74

AUTHORS: Rozenberg, L. A., Ulanovskiy, I. B., Korovin, Yu. M.

TITLE: The Effect of Bacteria Upon the Corrosion of Stainless Steels in Narrow Clearances (Vliyaniye bakteriy na korroziyu nerzhaveyushchikh staley v uzkikh zazorakh)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 4, pp 909-912 (USSR)

ABSTRACT: Stainless steels are in narrow clearances under the influence of seawater subjected to ... intensive corrosion (Refs 5-7). Since the effect of the bacteria is considerable (Refs 2,3) the topic mentioned in the title is interesting. The destructions are on the whole due to the effect of voltaic couples. The surface of the clearance has the effect of an anode, whereas the surrounding surface has the function of a cathode (Refs 5-7). The authors observed that the corrosion processes within the clearances are of vital importance to the bacteria. In this connection the authors investigated the development of the bacteria already while the clearance has the function of an anode as well as before the formation of a voltaic couple. Samples of stainless steels 1 Kh 13 and 1 Kh 18

Card 1/4

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

The Effect of Bacteria Upon the Corrosion of Stainless Steels in Narrow Clearances

N9T, 50 x 10 x 1 mm were tested in the laboratory, whereas other ones 240 x 180 x 4 m were tested in the Black Sea. The surface was polished, degreased by alcohol and singed over a spirit burner. The desired pH-value was obtained by the addition of HCl. The experiments were carried out with Vibrio desulfuricans, Leptothrix crassa, Pseudomonas fluorescens liquefaciens and Bac. mycoides. Moreover, an amassment of saprophytic seawater bacteria and a culture isolated from it (and as well predominating in it) - called K-1 under certain conditions - was observed. Bacteria develop if the clearance has the function of an anode. If a voltaic couple is formed on the surface of a steel plate the surface within the clearance is anodically polarized and thus the pH-value of the electrolyte reduced. The authors explain the effect of either factor. Figure 1 shows the experimental scheme. Each experiment takes 24 hours. The effect of the anodic polarization on the development of various bacteria is approximately equal. The curves of figure 2a show that the number of bacteria is continuously reduced with rising current density, especially between 0 - 0.04 ma/cm^2. This can be explained by electrochemical phenomena (Refs 4,6). The corrosion

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

The Effect of Bacteria Upon the Corrosion of Stainless Steels in Narrow Clearances

products on the anode in the seawater are on the whole concentrated solutions of metal chlorides (Fe, Cr, Ni, et al., Ref 6) in the stagnation zone. Thus the pH may be considerably reduced. In the case of a pH decrease the development of bacteria is first (between pH 8.0 - 4.0) rapidly reduced, then, however, more slowly (Fig 2b). Saprophytic bacteria decrease to a considerable great extent. Thus the development of bacteria is reduced by two phenomena connected with each other: the anodic polarization and the reduction of the pH. This was confirmed by special experiments in the sea which took 8 months (Fig 3). Development of bacteria in the clearance before the formation of the voltaic couple (Table 1). Up to that moment there are no reasons to prevent the development of bacteria in the clearance. In this case the pH is equal to that of the surrounding medium. The bacteria grow therefore well. The bacteria are not washed out of the stagnant zone since a displacement in the electrolyte is in the narrow clearance only possible by diffusion. Their quantity in the clearance is therefore probable to be much greater than on the surrounding

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

The Effect of Bacteria Upon the Corrosion of Stainless Steels in Narrow Clearances

surface. The development of bacteria on the latter interrupts the passivity of the steel plate, thus favoring the surface activation and the formation of a voltaic couple. There are 3 figures, 2 tables, and 7 Soviet references.

ASSOCIATION: Institut okeanologii Akademii nauk SSSR (Institute of Oceanography of the Academy of Sciences, USSR)

PRESENTED: December 23, 1958, by V. N. Shaposhnikov, Academician

SUBMITTED: December 18, 1958

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ULANOVSKIY, I.B.; ROZENBERG, L.A.; KOROVIN, Yu.M.

Influence of bacteria on the electrode potential of stainless steels in sea water. Mikrobiologiia 29 no.2:281-286 Mr-Ap '60 (MIRA 14:7)

1. Institut okeanologii AN SSSR.
(BACTERIA) (STEEL, STAINLESS)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L.A.; ULANOVSKIY, I.B.

Development of bacteria during cathodic polarization of steel in sea water. Mikrobiologiia 29 no.5:721-724 S-O '60. (MIRA 13:11)

1. Institut okeanologii AN SSSR.
(SEA WATER--MICROBIOLOGY) (STEEL--CORROSION)
(POLARIZATION (ELECTRICITY))

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L.A.; KOROVIN, Yu.M.; ULANOVSKIY, I.B.

Effect of bacteria on the corrosion of stainless steel. Trudy Inst. okean. 49:248-257 '61. (MIRA 15:1)
(Sea water--Microbiology)
(Steel, Stainless--Corrosion)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L.A.

Role of sulfate-reducing bacteria on the corrosion of low-alloy and stainless steel in sea water. Trudy Inst. okean. 49:258-265 '61. (MIRA 15:1)

(Bacteria, Sulfur) (Sea water--Microbiology)
(Steel--Corrosion)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L.A.

Microbiological characteristics of the bottoms and water of the Mediterranean Sea. Okeanologiia 2 no.1:109-117 '62. (MIRA 15:2)

1. Institut okeanologii AN SSSR.
(Mediterranean Sea--Bacteria)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L.A.

Role of bacteria in the process of electrochemical steel corrosion in seawater. Mikrobiologiia 32 no.4:689-694 Jl-Ag '63.
(MIRA 17:6)

1. Institut okeanologii AN SSSR.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L.A.

Quantitative and qualitative characteristics of bacterial fouling of metallic plates. Trudy Inst. okean. 70:225-230 '63.

Depolarization role of some sulfate reducing and saprophyte bacteria in the electrochemical corrosion of stainless and carbon steels. Ibid.:231-245 (MIRA 17:7)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROSENBERG, L.B., Cand Phys-Math Sci — (diss) "Certain problems of the statistics of elastic thin shells." Dnepropetrovsk, 1959. 7 pp (Min of Higher Education UkSSR. Dnepropetrovsk State U im 300th Anniversary of Unification of the Ukraine with Russia). 150 copies (KL,38-59, 114)

//

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L.B.

124-1957-1-287

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 34 (USSR)

AUTHORS: Polezhayev, V. M., Rozenberg, L. B., Zagubizhenko, P. A.

TITLE: Experimental Investigation of the Aerodynamic Characteristics of Automobile Fans (Eksperimental'noye issledovaniya aerodinamicheskikh kharakteristik avtomobil'nykh ventilyatorov)

PERIODICAL: Nauch. zap. Dnepropetrov. un-ta, 1953, Nr 41, pp 111-119

ABSTRACT: Results of the experimental investigation of the aerodynamic characteristics of automobile fans are shown for the foreign makes GMC, International, and White.

I. S. Simonov

1. Automobiles 2. Fans--Aerodynamic characteristics

Card 1/1

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L.B. (Dnepropetrovsk)

Investigating sloping shells subjected to the action of concentrated loads. Prykl. mekh. 4 no.4:461-466 '58. (MIRA 11:12)

1.Dnepropetrovskiy gosudarstvennyy universitet.
(Elastic plates and shells)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

L 15745-63 EWP(r)/BDS

ACCESSION NR: AR3002685 S/0124/63/000/005/V011/V011

52

SOURCE: Rzh. Mekhanika, Abs. 5V77

AUTHOR: Shevlyakov, Yu.A.; Polezhayev, V. M.; Rozenberg, L. B.

TITLE: Experimental study of the stress-deformed state of mildly sloping spherical shells 24

CITED SOURCE: Nauchn. zap. Dnepropetr. un-t, v. 55, 1961, 3-10

TOPIC TAGS: shell, stress, sag, strain, deformation, slope, spherical sphere, force

TRANSLATION: A short account of the experimental determination of the deformation of a thin shell with gently sloping surface, and hinge fastened edges, loaded at the top by a concentrated vertical force. The height of the rise of the shell was less than 1/5 the magnitude of its base. The studied shells were stamped from steel sheets.

A description is given of the set-up for determination of the sagging of the shell on the UIM-500 and the measuring apparatus for determination

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

L 15745-63 0
ACCESSION NR: AR3002685

of the deformation at the surface of the shell.
Comparison is made of experimental data on the sag and deformation with the theoretical data calculated in (Nauchn. zap. Dnepropetr. un-t, 1961, 55, 49-72 RZh Mekh, 1962, 10V70) There are misprints. A.A. Shpak

DATE ACQ: 14Jun63 SUB CODE: PH ENCL: 00

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

SOV/21-59-2-9/26

AUTHORS: Rosenberg, I.B., and Bezpal'ko, L.A.

TITLE: The Concentration of Stresses Near the Circular Orifice in a Spherical Bottom (Kontsentratsiya napryazheniy v sfericheskom dnishche okolo krugovogo otverstiya)

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1959, Nr 2, pp 149-152 (USSR)

ABSTRACT: This article continues the treatment of a problem of concentration of stresses in a spherical bottom with an orifice in the center, subject to internal pressure /Ref 1/. The results of the calculation are listed in a table which indicates, that circular stresses σ_2 reach a maximum in the toroid section of the casing, where at $\vartheta = 135^0$ they surpass the membrane stresses by 5.6 times. The bending stresses σ_1 are considerably less than the circular stresses and reach their maximum at the joints. There are 2

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

SOV/21-59-2-9/26

The Concentration of Stresses in a Spherical Bottom Near a Circular Orifice

sketches, 1 table and 3 Soviet references.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk State University)

PRESENTED: By F.I [illegible] ember of the AS UkrSSR

SUBMITTED: November 22, 1958

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L.B.

39007
S/198/62/008/004/003/006
D407/D301

AUTHORS: Bezpal'ko, L.A., Rozenberh, L.B. and Tul'chyns'kyy, B.H. (Dnipropetrovs'k)

TITLE: On a new kind of profile for the ring section of a basket bottom

PERIODICAL: Prykladna mekhanika, v. 8, no. 4, 1962, 398 - 402

TEXT: The stresses in a spherical bottom are considered which is joined to a cylindrical container by means of a ring of a certain form; it has the shape of a surface of revolution, formed by the rotation of a lemniscate-arc. The container is subjected to the internal pressure p. It is assumed that all the components of the shell have equal thickness h, and that the length of the cylindrical part of the shell, as well as the size of the spherical part are great, as compared to the height of the ring section. The complex stresses $\bar{T}$, $\bar{T}_1$ and $\bar{T}_2$ are determined by V.V. Novozhilov's formulas ("Teoriya tonkikh obolochek" (Theory of Thin Shells), Sudpromgiz, 1951). The calculation of the 3 parts of the shell reduces to integrating the non-homogeneous linear second-order

Card 1/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

On a new kind of profile for the ring ...

differential equation with variable coefficients:

$$\frac{d^2\tilde{T}}{d\vartheta^2} + \left[\left(2\frac{R_1}{R_2} - 1\right)\operatorname{ctg}\vartheta - \frac{1}{R_1}\frac{dR_1}{d\vartheta}\right]\frac{d\tilde{T}}{d\vartheta} + i\frac{R_1^2}{R_2 c}\tilde{T} =$$

$$= i\frac{R_1^2}{R_2 c}\left(T_1^* + T_2^*\right), \qquad (2)$$

where R_1 and R_2 are the principal radii curvature; T_1^*, T_2^* are the meridional- and annular stresses, determined from membrane-state theory; $c = \frac{h}{\sqrt{12\,(1-\nu^2)}}$. Eq. (2) is integrated separately for each part of the shell. After transformations, one obtains for the annular part:

Card 2/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L.B.; BEZPAL'KO, L.A.

Concentration of stresses in a spherical bottom near a circular opening. Dop.AN URSR no.2:149-152 '59. (MIRA 12:5)

1. Dnepropetrovskiy gosudarstvennyy universitet. Predstavil akademik F.P.Belyankin [F.P.Bieliankin].
(Strains and stresses)
(Elastic plates and shells)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L.B.

137-58-2-2899

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 99 (USSR)

AUTHORS: Tul'chinskiy, B.G., Polezhayev, V.M., Rozenberg, L.B.

TITLE: The Force Exerted in Heading Bolts in the Manufacture of Bolts on Cold-upsetting Machines (Eksperimental'noye issledovaniye sily vysadki golovki bolta pri izgotovlenii yego na kholodnovy-sadochnom avtomate)

PERIODICAL: Nauchn. zap. Dnepropetr. un-t, 1956, Vol 45, pp 177-181

ABSTRACT: An account is given of methods derived and results obtained from an experimental investigation made under production conditions at the Dnepropetrovsk Metal-goods Plant. The investigation consisted in recording on a loop oscillograph the force exerted by the first and second upsetting passes, the operation of the forming punch, and the readings of a timing device - with the aid of wire strain gages pasted to the surface of the forming punch. It was found that the maximum force exerted by the first and second upsetting pass differed from the maximum static-compression force by anywhere up to 5 percent. Attention is drawn to the great disparity in the magnitude of the force as computed with the formula given in the book "Vysadochnyye i otreznyye pressy-avtomaty"

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

137-58-2-2899

The Force Exerted in Heading Bolts in the Manufacture of Bolts (cont.)

(Automatic Upsetting and Shearing Presses) by G.A.Navrotskiy and its magnitude as determined in the present investigation.

G.F.

1. Bolts—Manufacture 2. Forge presses—Performance—Test results

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

L 8525-66

ACC NR: AP5028047 SOURCE CODE: UR/0046/65/011/004/0438/0441

56
49
B

AUTHOR: Grasyuk, D.S.; Oshchenkov, P.K.; Rozenberg, L.D.; Semennikov, Yu. B.

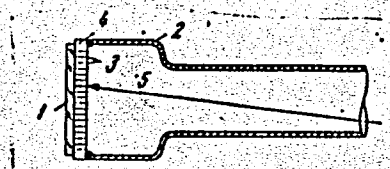
ORG: Institute of Acoustics, AN SSSR, Moscow (Akusticheskiy institut AN SSSR)

TITLE: An ultrasonic acoustic visor with a new U-55 electronic-acoustic image converter

SOURCE: Akusticheskiy zhurnal, v. 11, no. 4, 1965, 438-441

TOPIC TAGS: ultrasonic equipment, electronic device, acoustic equipment, image converter

ABSTRACT: The authors present a description of a new U-55 electronic-acoustic image converter in which the piezoelectric receiving plate is not one of the walls of the vacuum vessel, as opposed to image converters in common usage which use a wall (usually the front wall) of the vacuum vessel as the plate. A schematic diagram of the device is presented (Fig. 1). It is



1 - Receiving piezoelectric plate; 2 - Converter body; 3 - Thin metal lead-in; 4 - glass plate; 5 - electron beam.

Card 1/2 UDC: 620.179.16

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ACC NR: AP5028047

noted that the converter is capable of copying the image of any electric contour incident on its surface, regardless of the origin of the contour, i.e., it may be used in a system with any contour source such as infrared or electrolytic. It has been named a "unicon" (unikon) (universal converter) because of its universal applicability. An acoustic visor (introscope) designed on the basis of the new converter, operating in the 3--9 Mc range, has been tested. Several examples of its application are given and discussed. It is noted that the examples presented show that the introscope makes it possible to obtain satisfactory images of a great variety of objects and may become the prototype of industrial units for obtaining visible images of defects in metals and plastics, and may also be utilized in medical diagnostics. Authors express their gratitude to V.I. Rybalka, M.A. Gorodnicheva, T.I. Didyus', R.G. Molchanova, V.I. Stepanov, S.I. Filipov, and V.I. Fomin, who participated in the development, construction, and tests of the converter and the ultrasonic introscope. Orig. art. has: 8 figures.

SUB CODE: GP, IE / SUBM DATE: 17Aug65 / ORIG REF: 006 / OTH REF: 005

jw

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

L 4995-66 EWT(d)/EWT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l)/EWA(h) JD

ACC NR: AP5025758 SOURCE CODE: UR/0286/65/000/018/0121/0121

34
B

AUTHORS: Orlov, I. F.; Rozenberg, L. D.; Yakhimovich, D. F.

ORG: none

TITLE: An ultrasonic vibrator. Class 49, No. 174936

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 121

TOPIC TAGS: ultrasonic equipment, ultrasonics

ABSTRACT: This Author Certificate presents an ultrasonic vibrator based on the one of Author Certificate No. 150346, and designed to increase the effectiveness of the ultrasonic treatment process. A concentrator on the side of the converter fastener is made in a row of sections cut in the axial direction. The number of sections corresponds to the number of converters, or, in the case of using a multiple-rod converter, to the number of rods of this converter.

SUB CODE: IE/ SUBM DATE: 13Jul62

Card 1/1 UDC: 621.9.018.6

09.01 15.99

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

L 4069-66 EWT(d)/EWT(m)/EWP(v)/EWP(k)/EWP(t)/EWP(h)/EWP(b)/EWP(l) JD

ACC NR: AP5023999 SOURCE CODE: UR/0020/65/164/002/0311/0314

AUTHOR: Rozenberg, L. D.; Kazantsev, V. F.; Mechetner, B. Kh.

ORG: Acoustic Institute, Academy of Sciences, SSSR (Akusticheskiy institut Akademii nauk SSSR); Experimental Scientific Research Institute of Metal-Cutting Machine Tools (Eksperimental'nyy nauchno-issledovatel'skiy institut metallorezhushchikh stankov)

TITLE: Increasing the efficiency of ultrasonic machining

SOURCE: AN SSSR. Doklady, v. 164, no. 2, 1965, 311-314

TOPIC TAGS: ultrasonic machining, abrasive slurry, abrasive slurry natural feed, abrasive slurry forced feed, ultrasonic machine efficiency

ABSTRACT: The newly developed 4772A and 4773A ultrasonic machine tools substitute forced feeding of abrasive slurry for the natural feeding in the parent model 4772. Fresh abrasive slurry is forced from a tank by compressed air at a pressure of 1—3.5 atm through a hole in the transducer (tool) into the working zone. The worked-out slurry flows into a settling tank. Continuous flow of fresh abrasive slurry with a required abrasive grain size makes the machining speed independent of the depth of the machined surface. Continuous flow also makes it possible to increase the tool pressure on the surface being machined, which, in turn, increases the ma-

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

L 4069-66

ACC NR: AP5023999

chining rate by 3—4 times and decreases the specific energy required for metal removal. Parent model 4772, which has a 1.5-kw generator, removed 1200 mm^3 of glass per min at a specific energy consumption of 75 j/mm^3. Model 4772A, which has a 1.5-kw generator, removes 5000 mm^3/min at a specific power consumption of 18 j/mm^3. The corresponding figures for model 4773A, which has a 4.0-kw generator, are 12,000 mm^3/min and 20 j/mm^3. Author Certificate No. 149666 was issued to L. D. Rosenberg, et al., in 1962 for the new fuel system. Orig. art. has: 4 figures and 1 table. [MS]

SUB CODE: IE,GP,MH/SUBM DATE: 03Feb65/ ORIG REF: 003/ OTH REF: 003/ ATD PRESS: 4128

BVK
Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

TROTSENKO, A.G., otv.red.; PORTNOV, A.I., prof., red.; GORBOV, T.P., red.; YEVDOKIMOV, D.Ya., red.; KNIZHKO, P.O., red.; KORCHINSKIY, N.O., red.; LESHCHINSKIY, A.F., red.; LYASHENKO, S.S., red.; ROZENBERG, M.A., prof., red.; SAVITSKIY, I.V., prof., red.; SHELUD'KO, V.M., red.

[Research in the field of pharmacy] Issledovaniia v oblasti farmatsii. Pod obshchei red. A.I.Portnova. Odessa, M-vo zhdavookhraneniia USSR, 1959. 314 p. (MIRA 13:6)

1. Zaporozhskiy gosudarstvennyy farmatsevticheskiy institut. 2. Kafedra organicheskoy khimii Odesskogo gosudarstvennogo farmatsevticheskogo instituta (for Trotsenko). 3. Kafedra farmatsevticheskoy khimii Odesskogo gosudarstvennogo farmatsevticheskogo instituta (for Portnov). 4. Kafedra neorganicheskoy i sudebnoy khimii Odesskogo gos.farmatsevt. instituta (for Yevdokimov). 5. Kafedra analiticheskoy khimii Odesskogo gos.farmatsevt.instituta (for Knizhko). Kafedra marksizma-leninizma i organizatsiya farmdela Odesskogo gos.farmatsevt.instituta (for Korchinskiy). 6. Kafedra biokhimii Odesskogo gos.farmatsevt.instituta (for Leshchinskiy). 7. Kafedra farmakognozii i tekhnologii lekarstvennykh form i galenovykh preparatov Odesskogo gos.farmatsevt.instituta (for Lyashenko). 8. Zaveduyushchiy kafedroy fiziologii i farmakologii Odesskogo gos.farmatsevt.instituta (for Rozenberg). 9. Zaveduyushchiy kafedroy biokhimii Odesskogo gos.farmatsevt.instituta (for Savitskiy). 10. Kafedra farmakognozii i botaniki Odesskogo gosudarstvennogo farmatsevticheskogo instituta (for Shelud'ko).

(PHARMACY)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

SOLNTSEV, L.L.; ROZENBERG, M.B.

Survey of foreign books and magazines. Sel'khozmashina no.5:3 of cover My '57. (MLRA 10:5)

(Bibliography--Agriculture)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

TIKHOMIROV, Vladimir Alekseyevich; ROZENBERG, Mikhail Borisovich; YAKOBSON, V.B., kand. tekhn. nauk, nauchnyy red.; KAPLIN, M.S., red.; MAMONTOVA, N.N., tekhn. red.

[Noise and vibration in small refrigerating machines]Shum i vibratsii malykh kholodil'nykh mashin. Moskva, Gostorgizdat, 1962. 62 p. (MIRA 16:3)
(Refrigeration and refrigerating machinery—Noise)
(Refrigeration and refrigerating machinery—Vibration)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

Rozenberg, L. D. and Shavrin, A. B.

"The Effect of the Mean Coefficient of Sound Absorption on the Level of Sound", Part I, Journal of Technical Physics, USSR, 19, p 1634, 1940.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

[redacted], L. D.

"Measurements of the Directional Properties on the Ear Carried Out With a Dummy," Dok AN SSSR, 26, No 6, 1940. Kiev Inst. of Motion-Picture Engineers.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

KOZENBERG, L. D.

844 A METHOD FOR CALCULATING SOUND FIELDS FORMED BY DISTRIBUTED SYSTEMS OF RADIATORS. L. D. Rosenberg. (*Journ. of Tech. Phys* (in Russian), No. 2/3, Vol. 12, 1942, pp. 103-148.)

See 1077 of 1943. It is pointed out that the usual method for determining the sound potential of a point by summing (vectorially) the amplitudes of the oscillations coming from all sources is not suitable for calculating sound fields since, apart from mathematical difficulties, the results so obtained are at variance with reality. It is suggested that a much closer approximation to real conditions is obtained if instead of the amplitudes, the average energies radiated from all sources are summed. The method is discussed in detail and then applied to the cases when radiators are uniformly distributed (a) along a straight line, (b) along a circumference, (c) along the sides of a square, (d) on a circle, (e) on a spherical surface, (f) on a cylindrical surface, and (g) in space.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

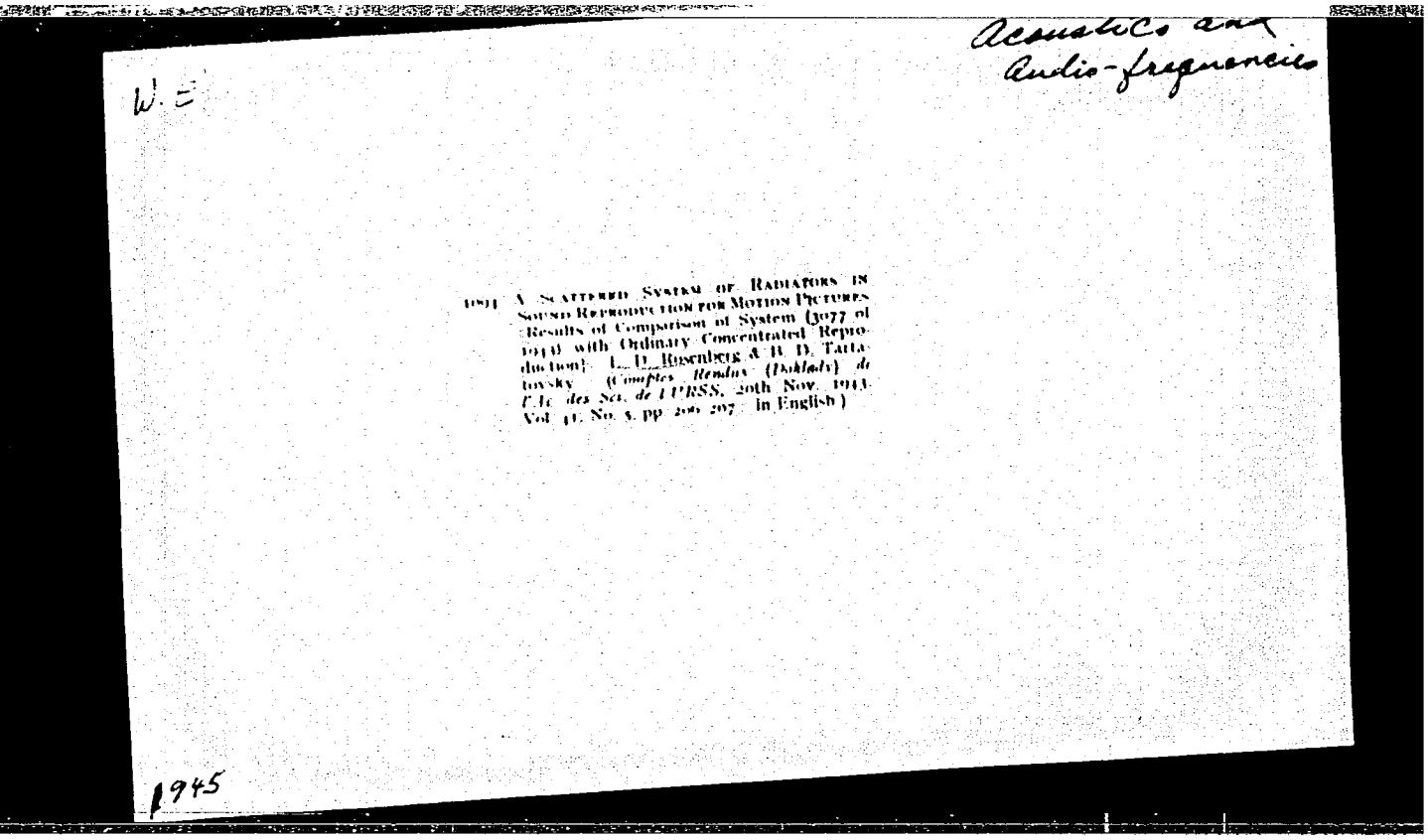
ROZENBERG, L. D.

1231. On the Nature of the Sound Field obtained when Music is reproduced by a System of Distributed Radiators.—L. D. Rosenberg (*Journ. of Tech. Phys.* [in Russian], No. 1/5, Vol. II. 1932 [pp. 211–219]).

Following on the work dealt with in §35 of March. Since speech and music occupy an intermediate position between periodic and non-periodic sound radiation, the method of calculating sound fields depends entirely on the "degree of coherence" (*i.e.* approximation to periodicity) of the matter radiated. The structure of speech and music in this respect has not yet been exhaustively studied, but there are reasons for supposing that interference is not prominent when speech or music are reproduced by a system of distributed radiators (*i.e.* the degree of coherence is low) and that therefore the energy summation method can be used. This is fully confirmed by experiments reported in the present paper. See also 1232, below.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3



Acoustics and Audio-frequencies

W.E.

1941 A Scattered System of Radiators in Sound Reproduction for Motion Pictures [Results of Comparison of System [1937 of 1941] with Ordinary Concentrated Reproduction] L. D. Rosenberg & B. D. Tartakovsky (*Comptes Rendus (Doklady) de l'Ac. des Sci. de l'URSS*, 20th Nov. 1941. Vol. 31, No. 5, pp. 205-207 in English)

1945

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROSENBERG, L. D., ANDREYEV, N. N., and BREKHOVSKIKH, L. M.

"Mbr., Physics Institute im. P. N. Lebedev, Acad. Sci. -1944-.

"Radiation of a Sound in Water as Affected by Depth of Submersion," Dok. AN, 47, No. 6, 1943

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

[illegible], L. D.

"Some Questions Concerning the Theory and Calculation of Electromagnetic Logometric Systems," Zhur. Tekh. Fiz., 14, No. 12, 1944.

Physical Inst. im. D.N.Lebedev, AS, USSR

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L. D.

"Radiation of a Sound in Water as Affected by Depth of Submersion," by L.D. Rozenberg, N.N.Andreyev, and Brekhovskikh. Dok AN SSSR 47, No 6, 1945.

The P.N.Lebedev Inst. of Physics.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

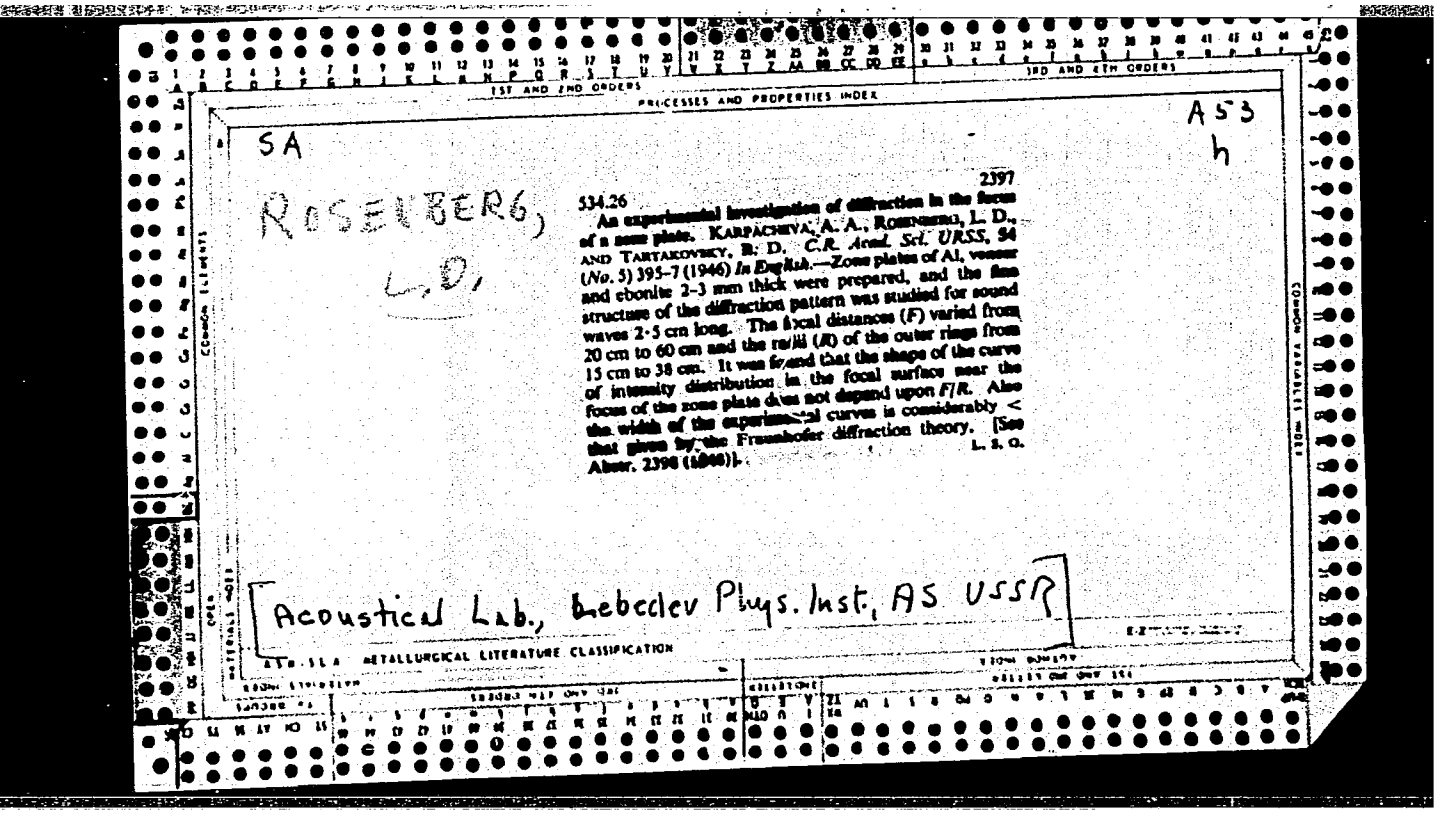
ROZENBERG, L. D.

"On Distribution of the Sound Absorbing Material in an Enclosure," Dok AN SSSR 51, No 8, 1946.

P.N.Lebedev Inst. of Physics, AS USSR.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

SA

A53

h

ROSENBERG, L.D.

2397

534.26

An experimental investigation of diffraction in the focus of a zone plate. KARPACHEVA, A. A., ROSENBERG, L. D., AND TARTAKOVSKY, B. D. *C.R. Acad. Sci. URSS*, 54 (*No.* 5) 395–7 (1946) *In English.*—Zone plates of Al, veneer and ebonite 2–3 mm thick were prepared, and the fine structure of the diffraction pattern was studied for sound waves 2·5 cm long. The focal distances (*F*) varied from 20 cm to 60 cm and the radii (*R*) of the outer rings from 15 cm to 38 cm. It was found that the shape of the curve of intensity distribution in the focal surface near the focus of the zone plate does not depend upon *F*/*R*. Also the width of the experimental curves is considerably < that given by the Fraunhofer diffraction theory. [See Abstr. 2398 (1946)]. L. S. G.

[Acoustical Lab., Lebedev Phys. Inst., AS USSR

METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L. D.

"Experimental Investigation of Focusing Properties of Zonal Plates," by L.D. Rozenberg, A.A.Karpacheva, and B.D.Tartakovskiy, Dpk AN SSSR, 57, No. 3, 1947.

Physics Inst. im. P.N.Lebedev, AS USSR.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

PA 53T90

USSR/Physics
Sound Waves
Lenses

Aug 1947

"Transparency of Homogeneous Sound Lenses," L. D. Rozenberg, Phys Inst imeni P. N. Lebedev, Acad Sci USSR, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVII, No 4

In 1945 Ernst published an article on calculation for transparency of lenses, but due to an error, data presented was worthless. In this process, sound waves are focused by means of concave lenses. It is difficult to calculate passage of sound waves through lenses. Submits several formulas for calculating

53T90

USSR/Physics (Contd) Aug 1947

sound wave amplitude reaching lenses. Submitted by Academician S. I. Vavilov, 25 Jan 1945.

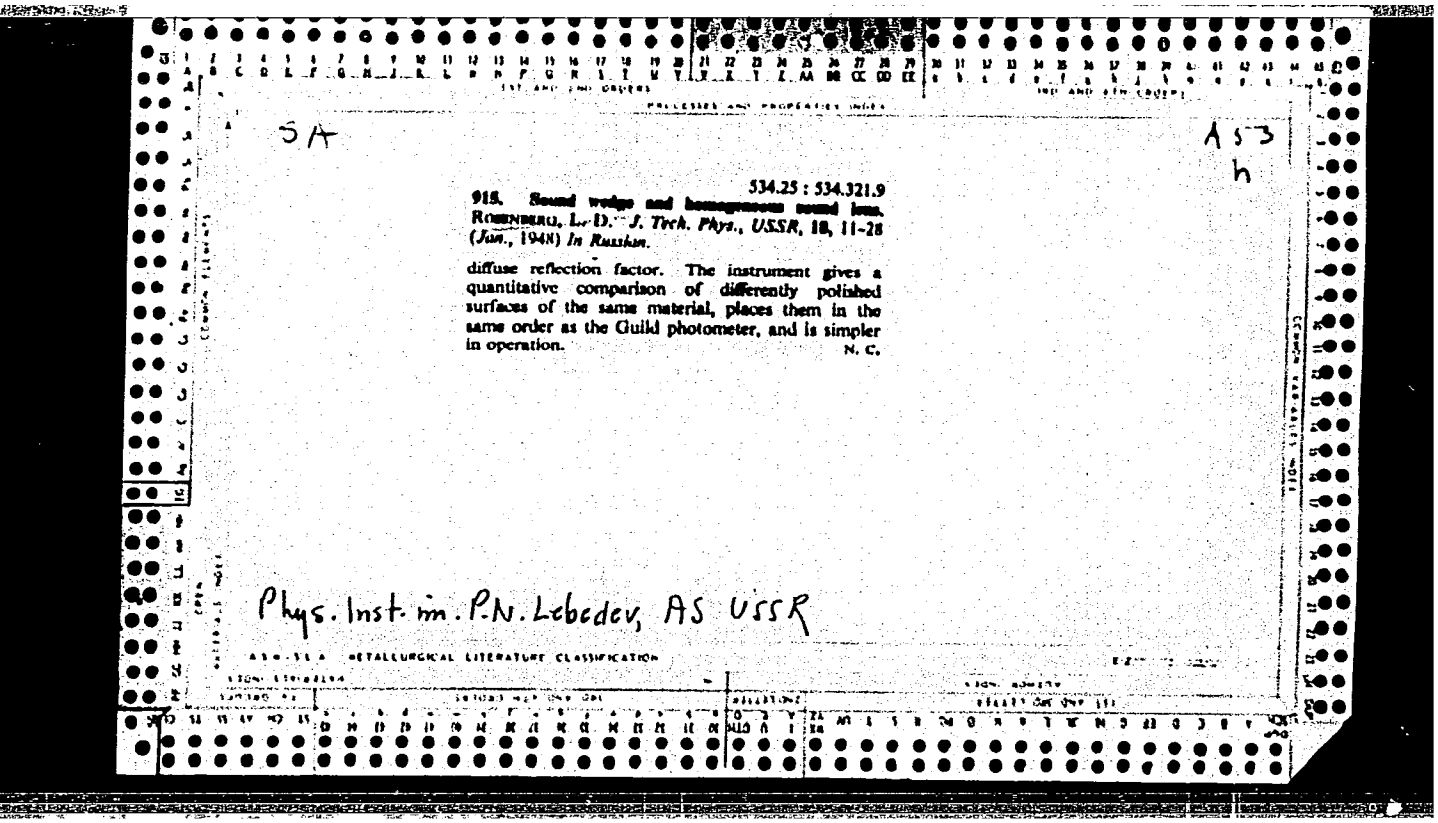
53T90

ROZENBERG, L. D.

53T90

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3



5A

A53
h

534.25 : 534.321.9

915. **Sound wedge and homogeneous sound lens.** ROSENBERG, L. D. *J. Tech. Phys., USSR*, 18, 11-28 (*Jun.*, 1948) *In Russian.*

diffuse reflection factor. The instrument gives a quantitative comparison of differently polished surfaces of the same material, places them in the same order as the Guild photometer, and is simpler in operation.

N. C.

Phys. Inst. im. P.N. Lebedev, AS USSR

A53-5A METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L . D.

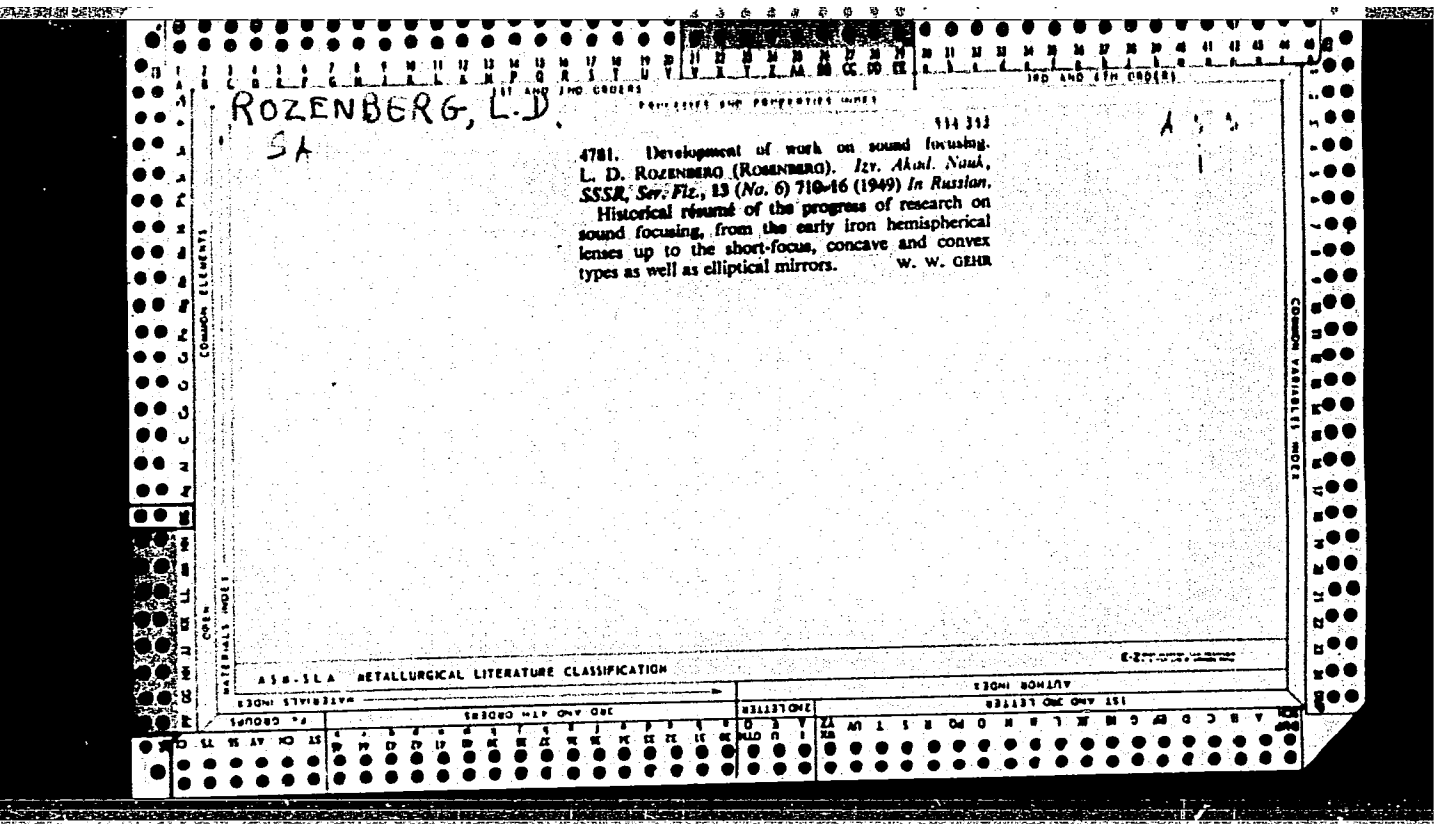
"Sound Focusing Systems, (Zvukovyye fokusiruyushchiye sistemy), 1949,

Publication of the Academy of Sciences USSR

M-28, 14 Dec 1954

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3



ROZENBERG, L.D.

SA

114 313

4781. Development of work on sound focusing. L. D. ROZENBERG (ROSENBERG). *Izv. Akad. Nauk, SSSR, Ser. Fiz.*, 13 (*No.* 6) 710-16 (1949) *In Russian.*

Historical résumé of the progress of research on sound focusing, from the early iron hemispherical lenses up to the short-focus, concave and convex types as well as elliptical mirrors. W. W. GEHR

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L. D., ANDREYEV, N. N., GRIGOR'YEV, V. S., LEYZER, I. G., and TARTAKOVSKIY, B.D.

"Architectural Acoustics in the USSR," Uspekhi Fiz. Nauk, 37, No.3, pp 269-315, 1949

Lengthy, general, historical, and nonmathematical discussion of acoustics of chambers; sound absorption; sound intensification; sound insulation; sound measurements. Gives extensive bibliography of 421 references covering all Russian works on architectural acoustics from 1861 to 1948. PA 170T98

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L. D.

37190. Vognutye ul'trazvukovye izluchateli. Uspekhi fiz. Nauk, t. XXXIX. Vyp. 3, 1949, s. 456-63 --Bibliogr: 12 Nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L. D.

PA 157T80

USSR/Physics - Sound
Acoustics

11 Nov 49

"A New Phenomenon in Hydroacoustics," L. D. Rozenberg, Phys Inst imeni Lebedev, Acad Sci USSR, 2 pp

"Dok Ak Nauk SSSR" Vol LXIX, No 2

Results of measurements on the long-distance propagation of sound underwater show that intensity of received signal and its form varies with variation in distance between source and point receiver. Submitted 22 Sep 49 by Acad S. I. Vavilov.

157T80

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L. D.

ROZENBERG, L.D.

Plane-ellyptic sound lenses. Part 1. General properties of sound lenses. Trudy Kom. po akust. no.5:114-119 '50. (MLRA 7:7)
(Sound lenses)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

PA 163T95

USSR/Physics - Acoustics
Sound Lenses

Apr 50

"Focusing of Sonic Waves by Parabolic Mirrors," L. D. Rozenberg, Phys Inst imeni Lebedev, Acad Sci USSR

"Zhur Tekh Fiz" Vol XX, No 4, pp 385-396

Rozenberg finds distribution of amplitudes over surface of spherical front of sound waves radiated from focus of a paraboloid with "angle of opening" alpha. With alpha as independent variable, he finds: energy flux, energy concentration, parabolic parameter

163T95

USSR/Physics - Acoustics (Contd) Apr 50

$p = 2f$, etc. Expands and studies Debye's expression $p(f,r)$. Includes graphs of $K/2kf$ vs alpha. Submitted 25 Oct 48.

ROZENBERG, L. D.

163T95

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

2331. Rozenberg, L. D., Two-mirror concentrator of ultrasonic waves. Nauk. zap. Fondu, 6-146, Dec. 1953; *Doklady Akad. Nauk SSSR (N.S.)* 91, 5, 1091–1094, Aug. 1953.

In order to obtain ultrasonic waves of very high intensity in liquid media, author proposes the following design, which is similar to A. Barone's [AMR 6, Rev. 1397]: Reflect plane waves emitted by circular source, [illegible] by outside surface of paraboloid of revolution, then by inside surface of larger ellipsoid of revolution with one of its foci coinciding with focus of paraboloid, so that pencil of ultrasonic waves will converge upon second focus of ellipsoid at large aperture angle. Author's mathematical analysis shows that the amplification coefficients K_p and K_v of pressure and of velocity are proportional jointly to the radius R of the emitter, the wave number k of the sound waves, and a factor depending on the eccentricity ε of the ellipsoid and the ratio $(2c/R)$, where $2c$ is distance between foci. The factors K_p/kR and K_v/kR are plotted as functions of ε for several values of $2c/R$; for small ε and large $2c/R$ they approach their maximum values, $\ln 2$ and $(1 - \ln 2)$.

H. Heller, USA

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

ROZENBERG, L. D.

PHASE X TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 660 - X

BOOK Call No.: AF648072

Author: ROZENBERG, L. D., Doc. of Tech. Sci., Prof., Laureate of the Stalin Prize

Full Title: ULTRASONICS AND THEIR USES. Stenographic Report of a public lecture delivered in the Central Lecture Hall of the Society in Moscow.

Transliterated Title: Ul'trazvuki i ikh primeneniye

PUBLISHING DATA

Originating Agency: All-Union Society for the Propagation of Political and Scientific Learning

Publishing House: "ZNANIYE"

Date: 1954 No. pp.: 38 No. of copies: 65,000

Editorial Staff: None

PURPOSE AND EVALUATION: This pamphlet is one of the popular booklets (Series III, No. 3) published by the All-Union Society for the Propagation of Political and Scientific Learning. It is written for a wide circle of readers and presents information which does not exceed in quality that usually given in similar popular American publications.

TEXT DATA

Coverage: The author discusses the basic theory of sound, sound waves

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

and beams, audible and inaudible or ultrasonic waves, and the various methods of generating inaudible sounds with the description of several types of emitters. He then describes briefly the use of ultrasonics for scientific and industrial purposes as well as in medicine.

Table of Contents

	Pages
Introduction	3
Properties of Inaudible Sounds	3-14
What are ultrasonics?	3-6
Ultrasonic beams	6-9
Energy of sounds	9-11
Cavitation	11-14
Methods of Generating Ultrasonics	14-24
Mechanical emitters (whistles and sirens)	15-18
Electromechanical emitters	18-24
Electrodynamic	19
Magnetostrictive	19-20
Piezoelectric	20-24
Application of Ultrasonics	24-38
Measuring distance	24-27
Testing materials for flaws	27-29

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

	Pages
Crushing effect	29-31
Emulsification	31-33
Destruction of bacteria	33-34
Air purification	34-35
Control of purity of chemical products	35-36
Chemical applications (transformation of chemical compounds and crystal structures)	36-37
Use in medicine and other possible fields	37-38

No. of References: Seven Russian references (1948-1953).

Facilities: Prof. S. Ya. Sokolov (who obtained ultrasonics of about one million kilocycles per second and developed an ultrasonic microscope); M. O. Kornfel'd and L. Ya. Suvorov (physicists experimenting with cavitation); V. L. Levshin, S. N. Rzhevkin, and Ya. I. Frenkel' (physicists studying electrical phenomena connected with cavitation); B. M. Vul, Corr. Mem., Academy of Sciences, USSR (who, according to the author, developed a new piezoelectric material, barium titanate ceramic); A. S. Matveyev, V. S. Sokolov, D. S. Shrayber (who worked on testing materials for flaws); and Eng. N. N. Dolgopolov (who worked on the use of ultrasonics in obtaining cholesterol from sheep's wool). Of the early Russian scientists, the author mentions

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3

Ul'trazvuki i ikh primeneniye AID 660 - X

P. N. Lebedev (1906 experiments with ultrasonics) and Academician Ya. D. Zakharov (1804 experiments with sound-measuring of distances).

4/4

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001445610007-3"